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(54) **SYSTEME ET TECHNIQUE DE CARTES POSTALES ELECTRONIQUES**

(54) **ELECTRONIC POSTCARD SYSTEM AND METHOD**

(57)

Interactive self service remote terminals enable customers to create a customized electronic postcard. In particular, the terminals capture several forms of media data from customers including a digital photographic image of the customer's face, an audio recording of the customer's voice, and an image of a hand written message. Media data captured by the remote terminal is transmitted to a central computer system for presentation in the form of an electronic postcard. Depending upon the customer's selection, the postcard may either be printed and mailed to any number of recipients as a conventional postcard, or may be available to recipients by means of a website. An electronic notification is transmitted to those recipients who have received the postcard electronically.



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(54) Titre : SYSTEME ET TECHNIQUE DE CARTES POSTALES ELECTRONIQUES

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(57) Abrégé/Abstract:

Interactive self service remote terminals enable customers to create a customized electronic postcard. In particular, the terminals capture several forms of media data from customers including a digital photographic image of the customer's face, an audio recording of the customer's voice, and an image of a hand written message. Media data captured by the remote terminal is transmitted to a central computer system for presentation in the form of an electronic postcard. Depending upon the customer's selection, the postcard may either be printed and mailed to any number of recipients as a conventional postcard, or may be available to recipients by means of a website. An electronic notification is transmitted to those recipients who have received the postcard electronically.

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Abstract

Interactive self service remote terminals enable customers to create a customized electronic postcard. In particular, the terminals capture several forms of media data from customers including a digital photographic image of the customer's face, an audio recording of the customer's voice, and an image of a hand written message. Media data captured by the remote terminal is transmitted to a central computer system for presentation in the form of an electronic postcard. Depending upon the customer's selection, the postcard may either be printed and mailed to any number of recipients as a conventional postcard, or may be available to recipients by means of a website. An electronic notification is transmitted to those recipients who have received the postcard electronically.

Electronic Postcard System and Method

Background of the Invention

5 While e-mail messages may be useful for sending short personal greetings to family and friends, e-mail messages tend to lack the personal touches of a conventional letter, or postcard. Furthermore, when away from the home or office, it may be difficult to find a computer terminal on which to transmit e-mail messages. What is desired is a readily accessible apparatus and method for sending personal greetings to friends and family from
10 various remote locations.

Summary

15 The invention relates to a system and method to capture and deliver personalized multimedia postcards over the Internet. In particular, one embodiment of the invention relates to a customer operated remote terminal, or kiosk, which enables a member of the general public create electronic postcards for family and friends. Self service remote terminal may be available to the customer at various locations such as airports, theme parks, hotels, tourist attractions, casinos, and stadiums.

20 Each remote terminal allows a customer to create a customized postcard. In particular, according to the preferred embodiment of the invention, each electronic postcard contains a digital image of the customer's face, a personalized audio message recorded by the customer, and a digitized image of a hand written message, also created
25 by the customer. These elements are compiled into an electronic postcard which is posted on a website. Each recipient identified by the customer receives a notification e-mail notifying the recipient that he or she has received an electronic postcard. Each notification also contains a hyperlink which enables to the recipient to privately access the webpage containing the customized electronic postcard.

Summary of the Drawings

Figure 1 is a drawing of the self-service remote terminal in accordance with the preferred embodiment of the invention.

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Figure 2 depicts an image of the interface of the remote terminal in accordance with the preferred embodiment of the invention.

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Figure 3 is a flowchart demonstrating the interaction between the remote terminal and the customer in accordance with the preferred embodiment of the invention.

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Figure 4 is a continued flowchart from Figure 3 demonstrating the interaction between the remote terminal and the customer in accordance with the preferred embodiment of the invention.

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Figure 5 is a continued flowchart from Figure 4 demonstrating the interaction between the remote terminal and the customer in accordance with the preferred embodiment of the invention.

Figure 6 is a depiction of an electronic postcard in accordance with the preferred embodiment of the invention.

Description of the Invention

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The electronic postcard system is operated from a central computer system and is administered by a system supervisor. According to the preferred embodiment of the invention, the central computer system is coupled to a database used for storing electronic postcard data and connected to a telecommunications network such as the Internet. Specifically, the apparatus requirements of the central computer system include means for

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receiving electronic postcard data from remote terminals, means for generating electronic

postcards, means for generating and posting websites containing the electronic postcards, and means for notifying the recipients of electronic postcards by means of an e-mailed notification message.

5 Referring now to Figure 1, according to the preferred embodiment of the invention, a plurality of self-service remote terminal **100** are connected to the central computing system by means of the Internet. Furthermore, in accordance with the preferred embodiment of the invention, each remote terminal includes a microprocessor, a digital camera, a touch sensitive screen, audio speakers, and a microphone. Optionally, the
10 remote terminal may also include a keyboard, a power surge protection device, and a printer for printing a customer's receipt. Each of the aforementioned peripheral devices are connected to the microprocessor and controlled by remote terminal software.

More specifically, in accordance with the preferred embodiment of the invention,
15 each customer interacts with the remote terminal by means of an interface presented on the touch screen. That is, the touch screen is used to guide the customer through the process of providing the information necessary in order to create an electronic postcard.

What follows is an description of a typical customer interaction in accordance with
20 the preferred embodiment of the invention.

Referring now to Figure 2, a customer primarily interacts with the system by means of the touch screen, preferably by using a suitable touch screen pointer. The customer commences a postcard generating session by touching the screen. The customer is
25 presented with a menu **200** of four selections. These selections are labelled (i) a photo, (ii) written message, (iii) audio message, and (iv) e-mail. These selections relate to the four types of information required from the customer in order to create an electronic postcard.

30 Referring to Figure 3, by selecting the "photo" selection **310**, the digital camera is

initialized in preparation for acquiring a digital photograph of the customer's face. On the display screen the customer is directed to smile into a digital camera positioned just above the touch screen. A short countdown is displayed on the touch screen before the digital camera takes a picture of the customer. The image acquired by the digital camera is automatically transmitted to the microprocessor and displayed on the touch screen. The image of the customer's face may or may not be acceptable to the customer depending upon the quality of the photograph, or the particular pose of the customer, as captured by the camera. The customer may choose to continue having his or her picture taken until an acceptable image has been captured.

By selecting the "written message" selection **320**, the customer is provided with a blank area on the screen on which to compose a short, handwritten message. In particular, the customer may optionally select to have the touch screen pointer function either as a marker or an eraser. Once the customer is satisfied with the handwritten message appearing on the touch screen, the customer indicates using the touch screen that the written message is complete. The handwritten image is stored by the remote terminal as a digital image file.

Referring now to Figure 4, by selecting the "audio message" selection **410**, on the touch screen, the customer is provided with a button menu enabling the customer to record a short audio message. The button menu includes a record button, a pause button, a stop button, a play button, a fast forward button and a rewind button. The customer may record and re-record an audio message as many times as necessarily until the customer is satisfied with the recording. Typically, the audio message will be limited to some reasonable length.

By selecting the "e-mail" option **420**, the customer is presented with postcard delivery options. Specifically, the customer may select to have a first postcard delivered to the recipient either by regular mail or by electronic means. Based on the customer's selection, the customer is directed to enter mailing information using an image of a

keyboard displayed on the touch screen. By selecting appropriate characters, the customer keys in both the recipient's address, as well as the customer's own address. Once this information has been entered, the remote terminal may prompt the customer for an additional recipient address for a second postcard. The customer may continue adding recipient addresses in the manner described above until the customer has entered the addresses of all desired recipients.

Referring now to Figure 5, on the touch screen, the customer is presented with payment options. The customer may pay for the service using a credit card or debit card by swiping the card in the card swipe. Payment is effected to the system administrator.

The information provided by the customer is correlated with a unique identification number composed in part by the unique remote terminal number assigned to each remote terminal, and in part by the postcard number assigned to each electronic postcard request. The correlated information is transmitted by the remote terminal to the central computing system by means of the telecommunications network. The central computing system receives the information and prepares an electronic postcard.

Specifically, the information provided by the customer is selectively arranged and formatted in accordance with a master template, thereby generating an electronic postcard. That is, the photograph of the customer, as well as image of the customer's hand written message may be displayed on the website, while a link allows the recipient to download the associated audio file. The entire postcard is next posted on the world wide web on a website maintained by the system administrator. In particular, the website address for a particular electronic postcard is in part formed by the postcard's unique identifier number, thereby providing a measure of security for the various posted electronic postcards.

From the list of addresses provided by the customer, the central computing system transmits an e-mail notification to every recipient identified by the customer. The notification notifies the recipient that he or she has received an electronic postcard. The

notification furthermore includes a hyperlink enabling the recipient to access the website containing his or her customized e-mail message.

By selecting the hyperlink included in the e-mailed notification, a recipient may
5 obtain a view of, and listen to, the electronic postcard. An example of an electronic postcard is depicted in Figure 6.

For those postcards which are to be delivered by regular mail, the postcards as
10 generated above by the central computer system may be printed, and mailed to the addresses of recipients.

In addition to the typical customer interaction process described above, the self-service remote terminal and central computing system may also communicate in other types of situations. For example, when available, the remote terminal may receive
15 software upgrades from the central computing system. Furthermore, in the event the customer requires assistance while interacting with the remote terminal, the customer may be interactively linked to the system supervisor to ask questions and receive advise; the customer may communicate with a customer service representative by means of a telephone discussion using the microphone and speakers provided in the remote terminal.

20 Furthermore, the various electronic postcard data provided by customers and stored by the system supervisor in a database coupled to the central computing system may be used to data create customer profiles in order to better meet the needs of customers. Optionally, based on the range of customer profiles stored in the database, the system
25 supervisor may use such data in association with targeted advertising initiatives.

Although in accordance with the preferred embodiment of the invention, the system may be user operated by means of an interface presented on a remote terminal, the system may also be transportable to various events and operated by a system supervisor
30 on behalf of customers.

What is claimed is:

1. A self service remote terminal enabling customers to transmits electronic postcards comprising a plurality of media to a recipient.
- 5 2. The self service remote terminal of claim 1 wherein the plurality of media include an image, an audio message, and a hand generated image.
3. The self service remote terminal of claim 1 wherein the electronic postcard may be
10 accessed by a recipient electronically.
4. The self service remote terminal of claim 3 wherein a notification notifying the recipient
- 15 5. The self service remote terminal of claim 1 wherein the electronic postcard may be delivered to the recipient by regular mail.

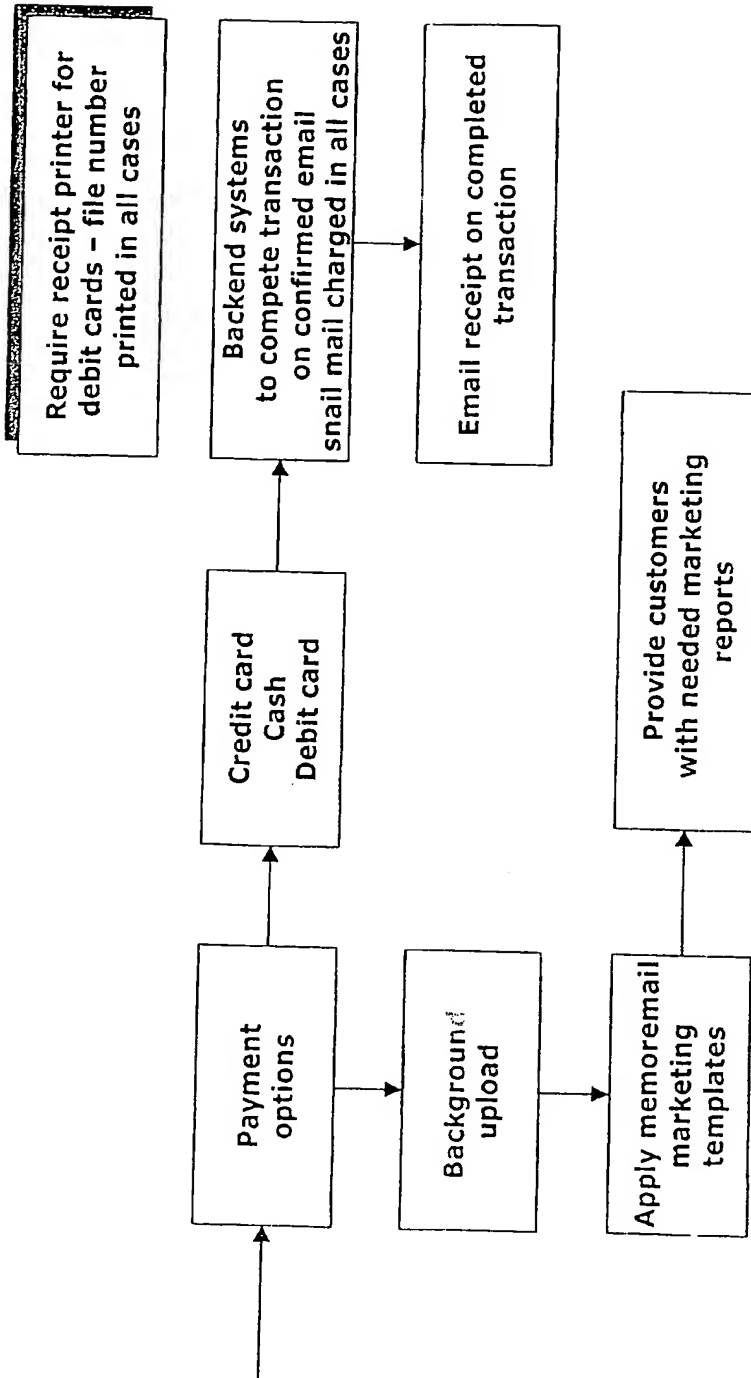


Fig. 5

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UNSCANNABLE ITEM

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(ITEM ON THE 10TH FLOOR ZONE 5 IN THE FILE PREPARATION SECTION)

DOCUMENT REÇU AVEC CETTE DEMANDE

NE POUVANT ÊTRE BALAYÉ

(DOCUMENT AU 10 IÈME ÉTAGE AIRE 5 DANS LA SECTION DE LA
PRÉPARATION DES DOSSIERS)